

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

1. (Cancelled)
2. (Cancelled)
3. (Cancelled)
4. (Cancelled)
5. (Cancelled)

6. (currently amended) A method of emulating a handheld video game platform device of the type that runs video game software to present interactive displays of animated video game play in response to user inputs, the method comprising:

loading-launching and executing an-a video game device emulator program on a target computing device platform different from said handheld video game device, said target computing device being capable of displaying graphical information on a target computing device display, said target computing device having read/write memory and receiving user inputs, said launched and executing video game device emulator program controlling said target computing device to at least in part emulate said handheld video game device so as to at least in part enable said target computing device to run said video game software and present interactive displays of said animated video game play in response to user inputs to said target computing platform;

modeling at least some display timing activities of said handheld video game device on said target computing device;

parsing-and-processing, with said emulator program executing on said target computing device, an-executable-a video game software image capable of being executed on said handheld video game platform device; and

generating an-a real time interactive video game presentation on said target platform-computing device display at least in part in response to said processed video game software image and said modeled display timing activities,

wherein the target platform-computing device comprises a display unit havinghas

a predetermined display area, and said video game device emulator emulated program displays the visual part of said audio-visual at least a portion of said real time interactive video game presentation on only a subset of said predetermined display unit display area,

wherein said video game software image comprises multiple ROM pages and said method further includes said emulator program allocating ROM pages in said target computing device read/write memory and duplicating at least a portion of said allocated ROM pages.

7. (Canceled)

8. (Canceled)

9. (Canceled)

10. (Canceled)

11. (Canceled)

12. (Canceled)

13. (Canceled)

14. (currently amended) An emulator that emulates in software, at least a portion of handheld video game platform hardware, said emulator comprising:

a target platform different from said handheld video game platform hardware, said target platform including a processor that loads and executes emulation software, parses and processes an a video game software image capable of being executed on said handheld video game platform hardware, and generates an audio-visual real time interactive presentation in response to said image,

wherein the target platform comprises a seat-back-display unit having a predetermined display area, and said target platform under control of said emulation software displays the visual part of said audio visual presentation on only a subset of said seat-back-display unit predetermined display area,

wherein said video game software image comprises multiple ROM pages and said method further includes said emulation software allocating ROM pages in target platform read/write memory and duplicating at least a portion of said allocated ROM pages to facilitate paging operations.

15. (Canceled)

16. (Canceled)

17 (currently amended). The method of claim 6 wherein said target computing device display unit comprises a liquid crystal display.

18 (currently amended). The method of claim 6 further including executing wherein said modeling comprises modeling a virtual liquid crystal display controller state machine to maintain real time synchronization with events as they would occur on said handheld video game device platform.

19 (previously presented). The method of claim 6 further including using hardware-assisted BLIT memory transfer operations to efficiently transfer graphics information.

20 (previously presented). The method of claim 6 further including using a pre-computed translation table that translates native platform graphics character formats.

21 (currently amended). The method of claim 6 further including emulating registers and hardware-based memory structures within the handheld video game device machine in random access memory under software control.

22 (previously presented). The method of claim 6 further including using a jump table to efficiently parse incoming binary instruction formats.

23 (previously presented). The method of claim 6 further including using a page table to control memory access by remapping memory access instructions into different memory locations and/or function calls.

24 (currently amended). The method of claim 6 further including providing a read only memory protection function to eliminate overwriting of read only memory during emulated operations.

25 (currently amended). The method of claim 6 further including wherein said modeling said video game platform includes using a stage-state machine defining search, transfer, horizontal blank and vertical blank states.

26 (previously presented). The method of claim 25 further including providing a cycle timer to determine when a modeled state has expired and transition to a new state is desired.

27 (previously presented). The method of claim 6 further including selectively skipping frames while maintaining execution of instructions to maintain state information while minimizing game play slowdowns.

28 (currently amended). The method of claim 6 further including ~~proving performing~~ a no-operation look-ahead feature to avoid wasting processing time in no-operation loops.

29 (currently amended). The method of claim 6 further including modeling said handheld video game device platform native instruction registers as a union of byte, word and long register formats.

30 (currently amended). The method of claim 6 further including modeling handheld video game platform device native instruction CPU flags to allow efficient updating after operations are performed by the target platform computing device.

31 (currently amended). The method of claim 6 further including mapping the handheld video game platform device emulated program counter into at least one target platform computing device microprocessor general purpose register.

32 (currently amended). The method of claim 6 further including providing an adaptable input controller emulator to provide receive user inputs from a variety of different user input devices.

33 (currently amended). The method of claim 6 further including using screen memory buffers larger than display units said predetermined display area to increase paging efficiency by eliminating clipping calculations and using hardware Bitblit to transfer a subset of said memory buffer to display video memory.

34 (currently amended). The method of claim 6 wherein said target platform computing device comprises an airline seat back controller.

35. (new) The method of claim 6 wherein said target computing device comprises a personal digital assistant (PDA).

36. (new) The method of claim 6 wherein said target computing device comprises a handheld portable computing device.